

Application No.: 10/650,323  
Docket No.: UC0220USNA

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## Listing of Claims

1-8 (Canceled)

9. (Currently Amended) The composition of Claim 1, A luminescent organometallic complex composition of matter, the composition comprising at least one transition metal, M, that produces phosphorescent emission at room temperature;  
at least one first monoanionic bidentate ligand coordinated through a nitrogen on a heteroaromatic ring and a carbon which is part of an aromatic group; and  
at least one second ligand, coordinated through a carbon atom on an aromatic group and having Formula III

Arf-(CH<sub>2</sub>)<sub>m</sub>-Yl<sub>p</sub>

Formula III

wherein

Ar is an aromatic group,

Y is a group having a heteroatom capable of coordinating to metal M,

m is an integer from 1 through 20,

p is an integer from 1 through 5,

and further wherein one or more of the hydrogens in (CH<sub>2</sub>)<sub>m</sub> can be replaced with D or F[.]], wherein Y is selected from NR<sup>2</sup>, OR<sup>2</sup>, SR<sup>2</sup>, and PR<sup>3</sup>z, wherein

R<sup>2</sup> is the same or different at each occurrence and is H or C<sub>n</sub>H<sub>2n+1</sub>; and

R<sup>3</sup> is the same or different at each occurrence and is selected from H, R<sup>2</sup>, and Ar.

10-14 (Canceled)

15. (Currently Amended) The composition of Claim [1] 9, wherein M is iridium, the first ligand is phenylpyridine with substituents, the second ligand is  $\alpha,\alpha'$ -diphenylphosphino-m-xylene.

16-29 (Canceled)

30. (Previously Presented) A luminescent organometallic complex composition of matter, the composition comprising

iridium;

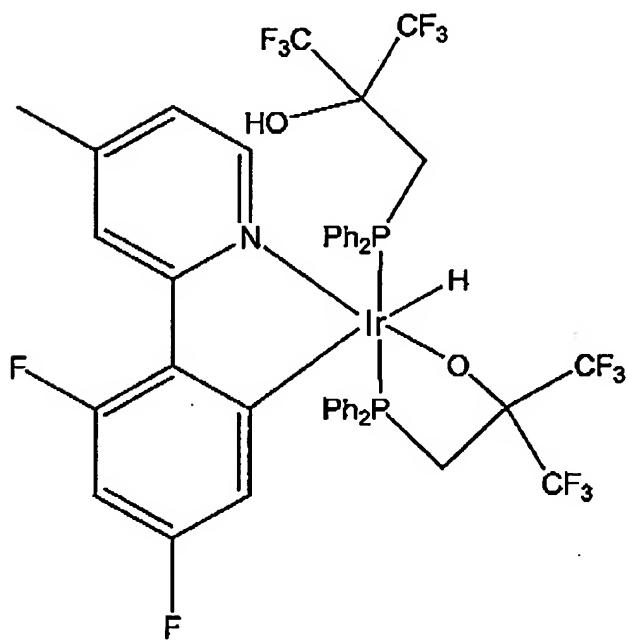
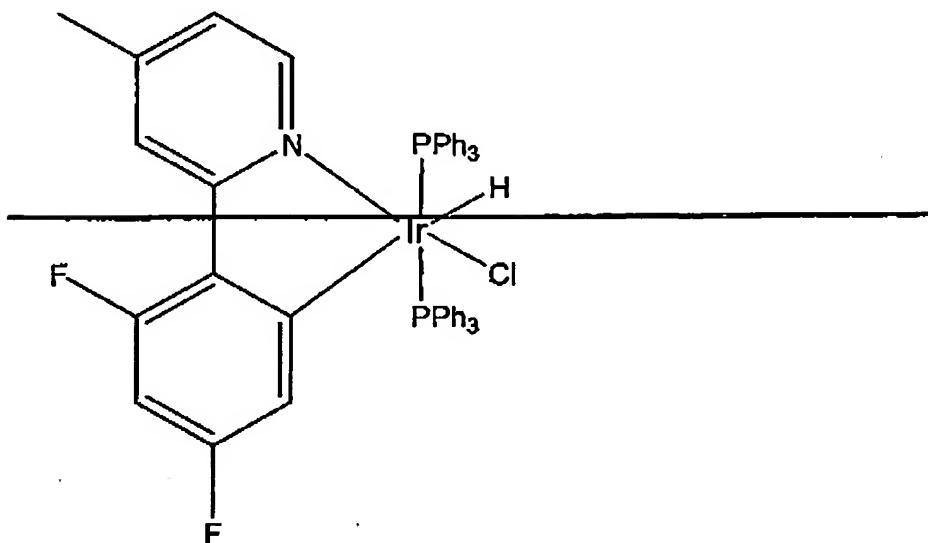
at least one first ligand which is a phenylpyridine with substituents;

at least one second hydride ligand; and

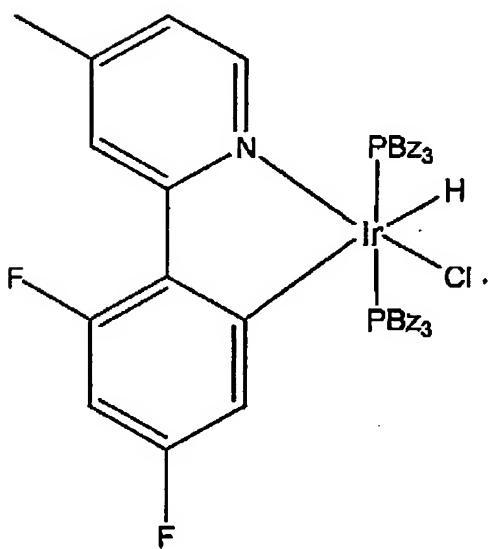
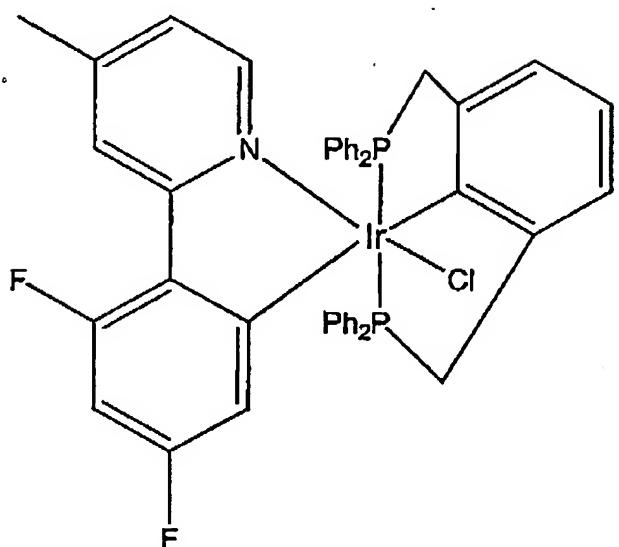
two diarylbenzylphosphine ligands.

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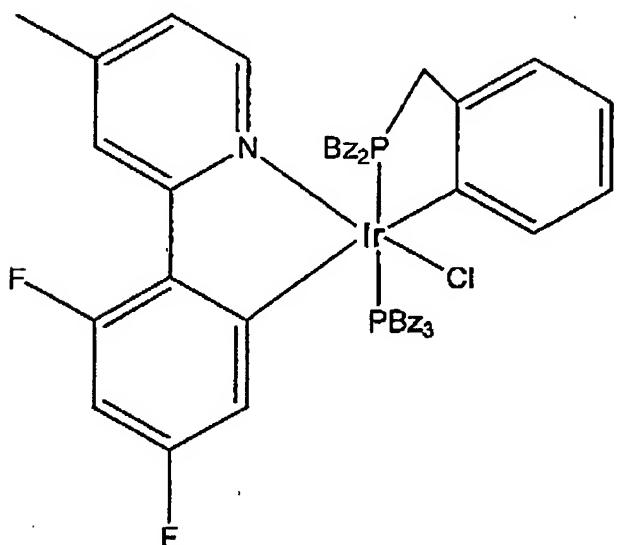
31. (Currently Amended) A luminescent organometallic complex composition of matter selected from:



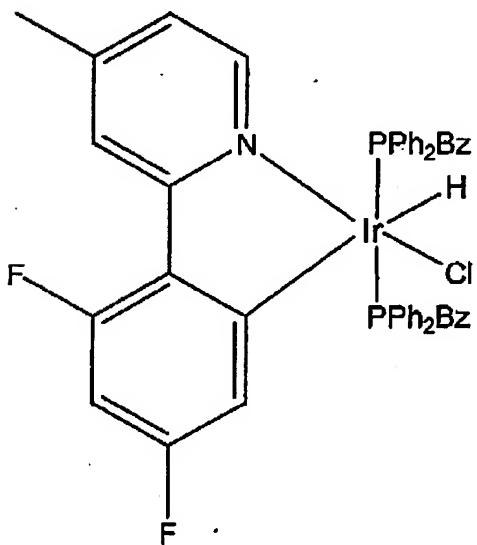
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, or



where Ph is phenyl and Bz is benzyl.

32. (Currently Amended) The composition of Claim [[1]] 9, wherein Ar is phenyl, m is 1, Y is  $P(Ar)_2$ , and p is 1 or 2.